

# TRANSPORTATION AND DISPOSAL PLAN

## Old American Zinc Plant Superfund Site and Surrounding Properties

St. Clair County, Illinois

### IN SUPPORT OF

**CONTRACT NO: W912P918D0014**

**TASK ORDER NUMBER: W912P919F0060**

**REVISION 1.0**

**JUNE 14, 2019**

### PREPARED FOR:



**US Army Corps  
of Engineers®**

St. Louis District

**Environmental & Munitions Branch (CEMVS-EC-E)  
Environmental Quality Section (CEMVS EC-EQ)**

Foot of Arsenal Street  
St. Louis, MO 63118

### PREPARED BY:

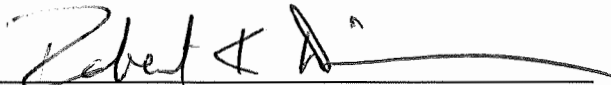


**ARDL Inc.**

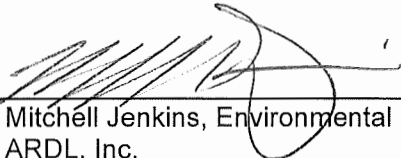
**ARDL, Inc.**  
400 Aviation Drive  
PO Box 1566  
Mount Vernon, IL 62864

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APPROVAL PAGE

Approved by:   
Robert Dismang, Senior Program Manager  
ARDL, Inc.

6/20/19  
Date

Approved by:   
Mitchell Jenkins, Environmental Manager  
ARDL, Inc.

6/20/19  
Date

Approved by:   
Valerie Jenkins, President  
ARDL, Inc.

6-20-19  
Date

Approved by: \_\_\_\_\_  
Pedro A. Rosario-González,  
Contracting Officer's Representative  
USACE – St. Louis

\_\_\_\_\_  
Date

Approved by: \_\_\_\_\_  
Kevin Slattery, Program Manager  
USACE – St. Louis

\_\_\_\_\_  
Date

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## **ACRONYMS AND ABBREVIATIONS**

CERCLA	Comprehensive Environmental Response, Cleanup, and Liability Act
CFR	Code of Federal Regulations
CL	Cleanup Level
COC	Contaminant of Concern
FA	Facility Area
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
mg/Kg	Milligram/Kilogram
NPDES	National Pollutant Discharge Elimination System
OAZ	Old American Zinc Superfund Site
PM/S	Project Manager/Superintendent
PPE	Personal Protective Equipment
PRP	Potentially Responsible Party
ROD	Record of Decision
RP	Residential Properties
SAP	Sampling and Analysis Plan
SARA	Superfund Amendments and Reauthorization Act
SSHO	Site Safety and Health Officer
SSHP	Site Safety and Health Plan
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency

## **1.0 INTRODUCTION**

ARDL has prepared this document for use in conjunction with the remediation of residential properties (RPs) near the Old American Zinc Plant Superfund Site (OAZ) in Fairmont City, IL. The work is being conducted with oversight from the United States Environmental Protection Agency (USEPA) Region 5 and the United States Army Corps of Engineers (USACE), St. Louis District. Contaminated soil was identified off-site on RPs surrounding the Facility Area (FA). The selected remedy for the RPs involves removal of source material (slag used as fill) and contaminated soil from the identified residential, commercial/industrial, vacant properties, or village alleyways above the applicable residential or commercial/industrial human health cleanup levels (CL). The properties will be backfilled with imported fill that meets project specifications and restored to pre-excavation condition. The excavated materials will be consolidated under a soil cover located within the FA for long-term management.

The project scope includes the excavation, transportation, and disposal of approximately 11,000 cubic yards of contaminated soils/debris from RPs surrounding the OAZ site.

### **1.1 PURPOSE**

The purpose of this plan is to minimize potential health, safety, and environmental risks resulting from the movement of excavated soil, material, and equipment during the activities of this project. The loading and transportation of waste materials will be conducted by ARDL and/or its subcontractors.

## **2.0 BACKGROUND**

The Illinois EPA (IEPA) began investigating the site in 1994 after complaints were received about dust in the area. The IEPA could not confirm the presence of airborne contaminants, but found high levels of arsenic, cadmium, lead, and zinc in soil samples taken at the site. The IEPA contacted the USEPA for support in dealing with potential environmental threats posed by the site. In 1999, the USEPA sampled the site and found lead levels which exceeded the safety limits for industrial and residential properties. Further investigation into the potentially responsible party (PRP) was initiated by the USEPA and parties were identified. Some remediation and further studies were performed to assess the extent of contamination. Based upon this study, the USEPA formulated a plan for cleanup and issued a Record of Decision (ROD) in 2012. Several off-site properties were found to have high levels of contamination. Soil on properties with lead concentrations greater than 400 milligram/kilogram (mg/Kg) was removed on a time critical basis. The PRP was responsible for performing the remedial work, but, due to bankruptcy proceedings, was forced to suspend activities. The USEPA took control of the project to complete the remedial work.

The USEPA's selected remedy for the remaining surrounding properties is to remove slag and contaminated soil from previously identified residential, commercial/industrial, vacant village properties, and alleyways that exhibit levels of contaminants above established CLs. The properties will be backfilled with imported soil that meets project specifications and restored to the pre-excavation state. The maximum design excavation depth for each property is 24 inches; however, in some cases where contamination may still be present, the maximum depth can be extended to 30 inches. In these cases, soil screening will be conducted to determine if concentrations of contaminants exceed the established CLs and to determine if the placement of demarcation fabric is necessary. Additionally, garden and landscaped areas within the targeted properties will be screened prior to excavation to prevent unnecessary removal of plants and shrubs.

## **2.1 SITE LOCATION**

The RPs are located in the villages of Washington Park and Fairmont City located in St. Clair and Madison counties in Illinois approximately 10 miles east of St. Louis, MO. (See Figure 1)

## **3.0 SCOPE OF WORK**

The scope of this document is to summarize the requirements for transportation and disposal of wastes generated while conducting work during this project. The majority of waste generated will be contaminated materials removed from surrounding properties. Other wastes include solid waste, Personal Protective Equipment (PPE), storm water, and decontamination liquids.

The overall objective of the project is to remove contaminated soils from the identified residential locations. Site operations include activities associated with the remedial actions to include, but not limited to: water management; operation and maintenance of the air monitoring systems; maintenance and monitoring of roads and support areas; utility services; dust control; daily reporting; and any other daily site activities. ARDL and subcontractors will provide all labor, material, equipment, tools, supplies, sanitary facilities, and off-site laboratory facilities necessary to perform the services required to complete the tasks specified under the statement of work.

## **3.1 REGULATORY FRAMEWORK**

As this remediation project is being performed in accordance with CERCLA, the soil removal activities conducted are exempt from federal, state, and local permitting requirements. The excavated material obtained during the cleanup of the RPs will be hauled to the soil staging piles at the FA. As all activities will be conducted within the area of contamination, transporters of this material will not require special licensing as hazardous waste haulers. The codes, standards, laws, regulations, and documents listed below establish the minimum requirements for waste management, transportation, and disposal.

1. Final Basis of Design Report, Old American Zinc Plant Superfund Site, Fairmont City, St. Clair County, Illinois, Surrounding Properties Remedial Design, December 2018.
2. Old American Zinc Plant Superfund Site, Fairmont City, St. Clair County Illinois, ROD, September 2012.
3. 29 CFR, Part 1910, Occupational Safety and Health Standards.
4. United States Environmental Protection Agency (USEPA), including:
  - a. All regulations implementing the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) as amended by the Superfund Amendments and Reauthorization Act (SARA) on October 17, 1986.
  - b. Regulations implementing the National Oil and Hazardous Substances Pollution Contingency Plan.
  - c. Section 404 of the Clean Water Act.
5. Other applicable state and local codes and regulations.
6. Other applicable Federal Applicable or Relevant and Appropriate
7. EM 385-1-1: Safety and Health Requirements, Rev 30, November 2014

#### **4.0 WASTE GENERATION PLANNING AND CONTROL**

##### **4.1 PROJECT WASTE GENERATION PLANNING**

Work will be planned, authorized, and accomplished under controlled conditions using work plans, instructions, or procedures commensurate with the complexity and risk of the work. Processes important to waste disposition activities (e.g., soil and water characterization, etc.) are identified in the project Sampling and Analysis Plan (SAP). Methods for controlling runoff, contaminant migration, and spill cleanups are presented in detail in the project Storm Water Pollution Prevention Plan (SWPPP).

##### **4.1.1 LEAK AND SPILL PROTECTION AND PREVENTION**

Leak and spill prevention is the responsibility of all personnel performing work under this plan. The key position for spill prevention and control is Mitchell Jenkins, the Project Manager/Superintendent (PM/S). In all cases, spills will be reported to the PM/S and cleaned up immediately upon discovery. The PM/S will notify USACE. The specific personnel roles and responsibilities for leak and spill prevention are provided below:

##### **PM/S:**

- Ensures personnel are trained regarding associated hazards of the materials used and appropriate spill response procedures;
- Coordinates emergency activities relating to control and cleanup of a hazardous material to minimize any hazards to personnel or the environment;
- Is familiar with the leak and spill prevention protocols discussed in this section; and
- Ensures personnel are trained in the appropriate spill control procedures in accordance with this section.



### Project Personnel:

- Be aware of the circumstances and situations that may contribute to oil spills and leaks; and
- Understand how to deal with spills, leaks, and other potential emergencies involving significant materials, including oils and petroleum products.

#### 4.1.1.1 POTENTIAL SPILL SOURCES

Multiple on-site activities have a potential for causing a release of oil, hazardous materials, and other pollutants into the environment.

1. Vehicle Storage and Equipment Maintenance: To complete the contract Scope of Work, the project will have several pieces of equipment on-site including excavators, bulldozers, site trucks and roll off trucks, etc. Maintenance for these vehicles will be conducted on-site in a designated area. Leaks and spills of motor oil, hydraulic fluids, coolants, and other lubricants are potential sources of pollutants. Material handling vehicles and other equipment used on site will be stored or parked in a designated area. Dry cleanup methods such as drip pans, absorbent, and absorbent pads will be used for vehicles leaking fluids until appropriate repairs are made.
2. Fuel Transfer Operations: During filling operations by outside vendors and the transfer of fuels into containers or vehicle tanks by on-site personnel, there is a potential for spillage or leaks of petroleum products. When unloading oil and other petroleum products, the following will be implemented:
  - Fill tanks to less than 90% capacity;
  - Avoid topping off tanks during filling operations;
  - Ensure that a spill kit is accessible during the transfer operation; and
  - Contain and clean up spills and leaks immediately.

#### 4.1.2 PROJECT WASTE STREAMS

The primary wastes are generated as site-related contaminated soils but will also include secondary waste streams such as PPE, excavated debris, trees, landscaping plants, storm water, and decontamination liquids. These secondary wastes will be managed in a manner to reduce, reuse, or recycle if possible.

Reduction of waste can be accomplished by choosing the least hazardous chemicals available for a task, by limiting quantities of materials purchased, and by performing tasks outside of contaminated areas when possible. Recycling of paper, plastic, aluminum cans, printer cartridges, and other recyclable items will be performed when possible.

The primary waste is contaminated soils that will be excavated from the RP. These soils contain the following contaminants of concern (COCs): arsenic, cadmium, lead, and zinc. These soils will be transported to the FA for stockpiling.

#### 4.1.2.1 WASTE STREAM CATEGORIES

Potential waste streams for surrounding RPs:

1. Contaminated soil
2. Vegetative material (trees, shrubs, weeds, plants, etc.)
3. Non-hazardous solid waste debris (garbage, bricks, concrete, gravel, piping, etc.)
4. Decontamination water and excavation water
5. PPE, poly-sheeting, etc.

Potential waste streams for the OAZ FA:

1. Wastes generated from equipment maintenance activities
2. Office waste (paper, printer cartridges, aluminum cans, trash, etc.)
3. PPE

#### 4.1.2.2 DOCUMENTATION

Each load of material to be hauled will be documented on a form which will be turned in at the end of the day. This form will track: the waste stream description; origination address; type of truck used for transport; the number of trucks used to haul each waste stream; and any other relevant information. Each form will be signed and dated by the truck driver at the time of loading. See Figure 3 for an example of the form to be used when transporting excavated soils. See Figure 4 for an example of the form to be used when transporting backfill materials.

### 5.0 **CHARACTERISTICS OF MATERIALS TO BE TRANSPORTED**

#### 5.1 EXCAVATED SOIL

Based upon previous investigations conducted by the USEPA and CH2M, the excavated soil from the RPs potentially contains at least one of four COCs: arsenic, cadmium, lead, and zinc above established residential levels. The contaminated soil will be removed and transported to staging piles located on the FA. The estimated total volume of soil to be excavated from these properties and alleyways is 10,728 yd<sup>3</sup>.

#### 5.2 STORMWATER

The work performed during this project will be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) for discharges of storm water associated with remedial activities. ARDL will be responsible for compliance with these permit requirements, which include preparing a SWPPP. Prior to excavation and cell containment activities, ARDL will be responsible for installing erosion and sedimentation control devices to minimize the potential for discharges of waste and impacted storm water during remediation. These controls and storm water disposal methods are discussed in detail in the SWPPP prepared for this project.

### **5.3 AQUEOUS FLUIDS**

Standing water present in an unlined excavation will be allowed to infiltrate before backfilling activities begin. Alternatively, the water may be pumped out and contained in 55-gallon Illinois Department of Transportation (IDOT) approved drums, portable tanks or equivalent, for subsequent transportation to the FA for staging. Aqueous waste generated from equipment decontamination at the FA will be allowed to infiltrate to ground or be containerized and staged at the FA.

Aqueous wastes will either be managed at the FA or sent off-site for disposal, as directed by USACE. Aqueous waste may be used at the FA for dust suppression. Waste characterization sampling may be conducted, as necessary, to evaluate, or to support, establishment of waste profiles in order to dispose at an approved facility.

### **5.4 PERSONAL PROTECTIVE EQUIPMENT / DECONTAMINATION RESIDUALS**

Waste PPE (protective outerwear, gloves, and respirators) and other solid decontamination residuals (disposable scoops, rags, empty containers, etc.) generated by the remedial activities will be disposed of concurrently with any building debris and other wastes destined for an approved disposal facility. Waste PPE and decontamination residuals shall be managed through transportation and disposal requirements for non-hazardous solids.

### **5.5 NON-HAZARDOUS MATERIALS**

For the purposes of this plan, non-hazardous materials are those that are not considered hazardous under state or federal regulations. Non-hazardous materials may consist of interfering or objectionable debris such as trash, rubbish, vegetation and other organic matter, whether alive, dead, or decaying. Other non-hazardous materials may include surface debris such as bricks, concrete pieces and other materials that will not be stored and reused. These materials shall be segregated, cleaned of soil and/or vegetation, and disposed of as non-contaminated waste.

### **5.6 VEGETATIVE MATERIAL**

Vegetative materials (trees, shrubs, weeds, plants) that were removed during the clearing of properties prior to excavation will be transported to the FA. Belowground root mass associated with trees, shrubs, and vegetation will be managed as contaminated waste at the FA. These materials will be ground up and stockpiled at the FA for use as compost. The chipped waste can only be used at the FA.

### **5.7 BORROW SOURCE**

Sources of general backfill and topsoil will be identified by ARDL. These materials have been tested by an analytical laboratory to verify that they meet environmental specifications and are appropriate for use. These materials will be imported to the FA for storage or taken directly to the RPs for use.

## **6.0 DESTINATION OF MATERIALS TO BE TRANSPORTED**

### **6.1 EXCAVATED SOIL**

The excavated soil will be transported to the FA to be consolidated under a soil cover. The material will be managed in a staging pile at the site until the consolidation cell is ready to accept the soils. It is not expected that the excavated soil will require any treatment and can be contained as is. The on-site disposal of excavated soil meets the requirements of the CERCLA Off-Site Rule as set forth in the National Contingency Plan (40 CFR 300.440). All excavated soil will be transported to the FA back gate, just east of the intersection of Cookson Road and North 45th Street, (see Figure 5). From the back gate, trucks containing excavated soil will drive on a “clean” gravel roadway to the staging pile to offload.

### **6.2 NON-HAZARDOUS MATERIAL**

Non-hazardous materials, as described in Section 5.5 above, will be bagged if appropriate and collected in roll-offs or similar receptacles (marked as sanitary waste) for disposal at a local/licensed permitted landfill as non-impacted wastes. Some non-hazardous materials may be stored on-site.

### **6.3 VEGETATIVE MATERIAL**

All vegetative material (above ground and below ground) will be transported to the FA and staged separately from the soil. The material will be mulched and stockpiled at the FA for use as compost. The chipped waste can only be used at the FA.

### **6.4 LIQUIDS**

Liquids (decontamination and accumulated water in excavations) will be managed on-site at the FA or transported off-site for disposal. On-site managed liquid waste will be used for dust suppression activities or allowed to infiltrate to the ground. In the event off-site disposal of liquid waste is necessary, the material will be characterized and a licensed hazardous waste transporter will be contracted to dispose of the waste at a licensed disposal or recycling facility.

## **7.0 TRANSPORTATION OF MATERIALS**

At this time, it is anticipated that the surrounding property remedial activities will not generate materials that require transportation off-site (i.e. outside of the FA). Truck drivers hauling materials for this project will be required to provide proof of all applicable state and local insurance requirements, valid driver's license, and vehicle registration and license. All drivers will be instructed to comply with all posted speed limits and all other traffic controls on public roads. Drivers will verify that loads do not exceed the maximum weight limit for the local roadways. Trucks will be inspected by drivers for visible dirt before they leave the site.

After the excavated soil is loaded into transport trucks, the loads will be secured with tarps. The trucks will be decontaminated by dry methods (manual brushing with brooms, shovels, etc.) to avoid tracking material onto roadways before leaving the site. The number of vehicles to be used for soil loading and transport will be minimized to avoid generating excess decontamination wastes. Each load of material transported from the RPs to the site will be documented, including number of loads, estimated quantity of each load, date and time truck left the work area, and destination.

## **7.1 SEQUENCE OF EVENTS**

At each property there will be a similar sequence of events. The components within each step may vary in order.

### **1. Property Setup**

- Inform resident of arrival
- Set up air monitors
- Conduct photo/video documentation, if not complete
- Put up/take down security fencing
- Mark excavation area(s)
- Set up any traffic/pedestrian controls as necessary (signs or cones indicating sidewalk closures, lane closures, etc.)
- Place plastic or tarp, if required
- Order 3rd party locate, if required
- Clearing and grubbing, if required

### **2. Excavation**

- Mob equipment onto site
- Excavate according to design
- Load dump trucks with excavated soil/debris waste
- Transport waste to FA and dump at staging pile
- Demarcation fabric, if required
- Decontamination
- Confirmation sampling

### **3. Backfill**

- Haul clean backfill material to site
- Backfill placement
- Compact as required
- Repairs if required
- Hydroseed and maintenance
- Put up/take down security fencing
- Demob

## **7.2 TRANSPORTATION ROUTES**

Transportation routes for trucks transporting excavated and backfill materials will be on arterial streets approved for truck traffic to minimize any potential impact on the local neighborhood. ARDL will instruct all drivers of the specific haul routes and alternate routes prior to commencing transport activities for the project. Transport routes from the RPs to FA and back are expected to range between a few blocks and up to half a mile. Once the trucks are loaded, covered, documented, and decontaminated, they will leave the residential areas in route to the FA vegetative or soil staging piles.

### **7.2.1 SOIL, DEBRIS, AND WASTE**

All excavated material will be transported via dump trucks to the FA back gate. Once a truck enters the back gate of the FA, they will be limited to driving on a clean rock entrance/exit road to limit contact with any site related contaminated material. If dust suppression is necessary, a water mist will be used during operations.

Once the excavated soils, debris, or vegetative materials are unloaded, the truck will proceed to the decontamination pad located near the back gate. The truck wheels and any part of the undercarriage which may harbor dirt will be cleaned using brooms, brushes, and/or pressure washing prior to leaving the site. ARDL will be responsible for ensuring that all egress points for truck and equipment transport from the site are clear of dirt and other site related materials.

### **7.2.2 IMPORTED MATERIALS/NON-HAZARDOUS WASTE PICKUP**

When vendor deliveries are received or non-hazardous wastes are picked up at the FA temporary work site, they will arrive at the front gate. Those drivers will be directed to the temporary office facilities or to the temporary storing areas. Trucks will be required to stay on the primary paved parking lot or temporary gravel to avoid contact with potentially contaminated soil at the site. Once the loads have been delivered or picked up, the trucks will exit the site on the same route in which they entered. Unless the trucks have come into contact with contaminated materials, no decontamination will be required on exit.

Those items determined as non-hazardous wastes and deposited in roll-offs or similar receptacles will be transported by local haulers to an approved local solid waste landfill.

### **7.2.3 BACKFILL MATERIALS TO RESIDENTIAL PROPERTIES**

Backfill materials will be hauled to the excavated properties either directly from a borrow source or the temporary stockpile area at the FA. Haul trucks will follow a direct route using the arterial roads to the extent practicable. All truck drivers will be instructed as to the preferred routes between the property, backfill source, and the FA prior to initiating hauling activities. The loads of all trucks carrying backfill materials will be covered and secured with a tarp. Trucks transporting backfill will enter and leave through the back gate.

## **8.0 TRAFFIC CONTROL**

### **8.1 STAGING IN RESIDENTIAL AREA**

Temporary “No Parking” signage or construction cones will be posted along street areas where excavated material will be loaded into trucks. Work is anticipated to be conducted on weekdays between the hours of 7:00am to 5:30pm. Access to individual properties may be limited during the material transport process; however, one point of access will be available at all times. Temporary construction safety fences will be maintained around active excavations. If required, flag personnel and signage will be used for public safety. Trucks will be coordinated and routed in a manner that minimizes the interference of surrounding activities and traffic patterns. Signage giving notice of construction activity (such as “Construction Ahead” or “Trucks Entering and Leaving Highway”) will be used when required. See Appendix A for Traffic Control Plan.

## **9.0 STREET CLEANING**

Street cleaning will be performed immediately, if/when waste materials are identified on the street. Final street cleaning will be performed prior to the removal of the erosion and sediment control measures. The debris from street cleaning will be managed with the excavated soil for transportation and placement in the excavated soil staging pile at the FA.

## **10.0 HEALTH AND SAFETY**

Health and safety oversight during the project is the responsibility of the Site Safety and Health Officer (SSHO). A Site Safety and Health Plan (SSHP) has been prepared and will be adhered to by all personnel conducting excavation, transportation, and decontamination activities during the remediation work. The SSHP was written to comply with the requirements of the USACE EM385-1-1, revision 30 November 2014 safety standards.

## **11.0 SPILL RESPONSE AND REPORTING**

Spills that may occur while transporting excavated material or imported backfill material will be addressed immediately by site personnel. To confine material when loading trucks, polyethylene sheeting will be placed on the ground between the excavation area and the truck. The sheeting will extend a minimum of 2 feet under the truck. Any spillage that occurs will be cleaned up and placed into the truck. Any spills that may occur while the material is in transit will also be cleaned up immediately using mechanical or manual equipment. The collected material will be placed into a truck for continued transport to the staging pile.

Any spill that occurs due to an accident or mechanical failure will be documented by the PM/S or his designee. The spilled soil will be isolated by traffic cones as necessary and will be picked up immediately to minimize any subsequent tracking of materials. Documentation will include the material description and estimated quantity, a hazard analysis, and the method used to cleanup the spill.

## **11.1 SPILL CONTINGENCY**

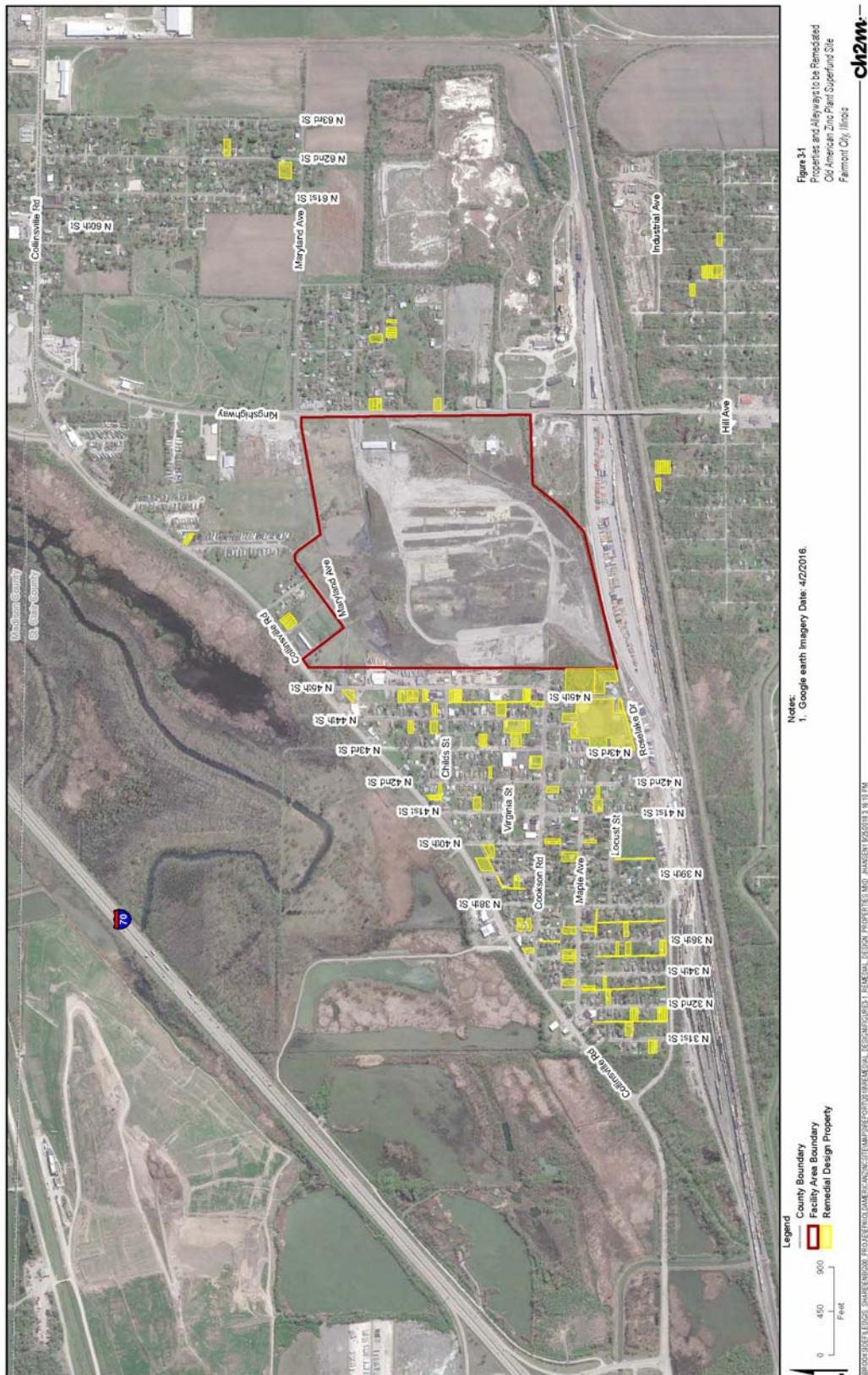
The probable risk of a release of any chemical substances during the course of construction activities will be limited to hydraulic oil release from a broken or damaged fitting hose, spills from refueling operations, or leaks from trucks delivering containers and/or materials to the site. ARDL will have a spill contingency kit on-site in order to respond to any potential spill of oil, fuels or coolants, and antifreeze from equipment. Materials collected in the course of response to a spill will be containerized and disposed of in accordance with all federal, state and local regulations. The PM/S will serve as the 24-Hour Emergency Response Contact and is knowledgeable of comprehensive emergency response procedures for hazardous and non-hazardous material spills.

## **12.0 REFERENCES**

1. Final Basis of Design Report, Old American Zinc Plant Superfund Site, Fairmont City, St. Clair County, Illinois, Surrounding Properties Remedial Design, December 2018.
2. Old American Zinc Plant Superfund Site, Fairmont City, St. Clair County Illinois, Record of Decision, September 2012.
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5. Regulations implementing the National Oil and Hazardous Substances Pollution Contingency Plan.
6. Section 404 of the Clean Water Act.
7. EM 385-1-1: Safety and Health Requirements, Rev 30, November 2014.
8. USACE 2019, Environmental Protection Plan, Old American Zinc Plant Superfund Site, Fairmont City, June 2019.
9. USACE 2019, Storm Water Pollution Protection Plan, Old American Zinc Plant Superfund Site, Fairmont City, May 2019.



### **Figure 1 - Site Location Map**





**Figure 2 - Location of FA Staging Area**



**Figure 3 - Excavation Tracking Log**  
**EXCAVATION TRACKING LOG**

**Site Name:** OAZ **Date:** \_\_\_\_\_  
**Address:** \_\_\_\_\_

Load #	Departure Time from Property	Dump Time at Repository	Tandem 12 cu yd	Single 6 cu yd
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

**DRIVER** \_\_\_\_\_  
**Truck #** \_\_\_\_\_

**Figure 4 - Backfill Tracking Log**  
**BACKFILL TRACKING LOG**

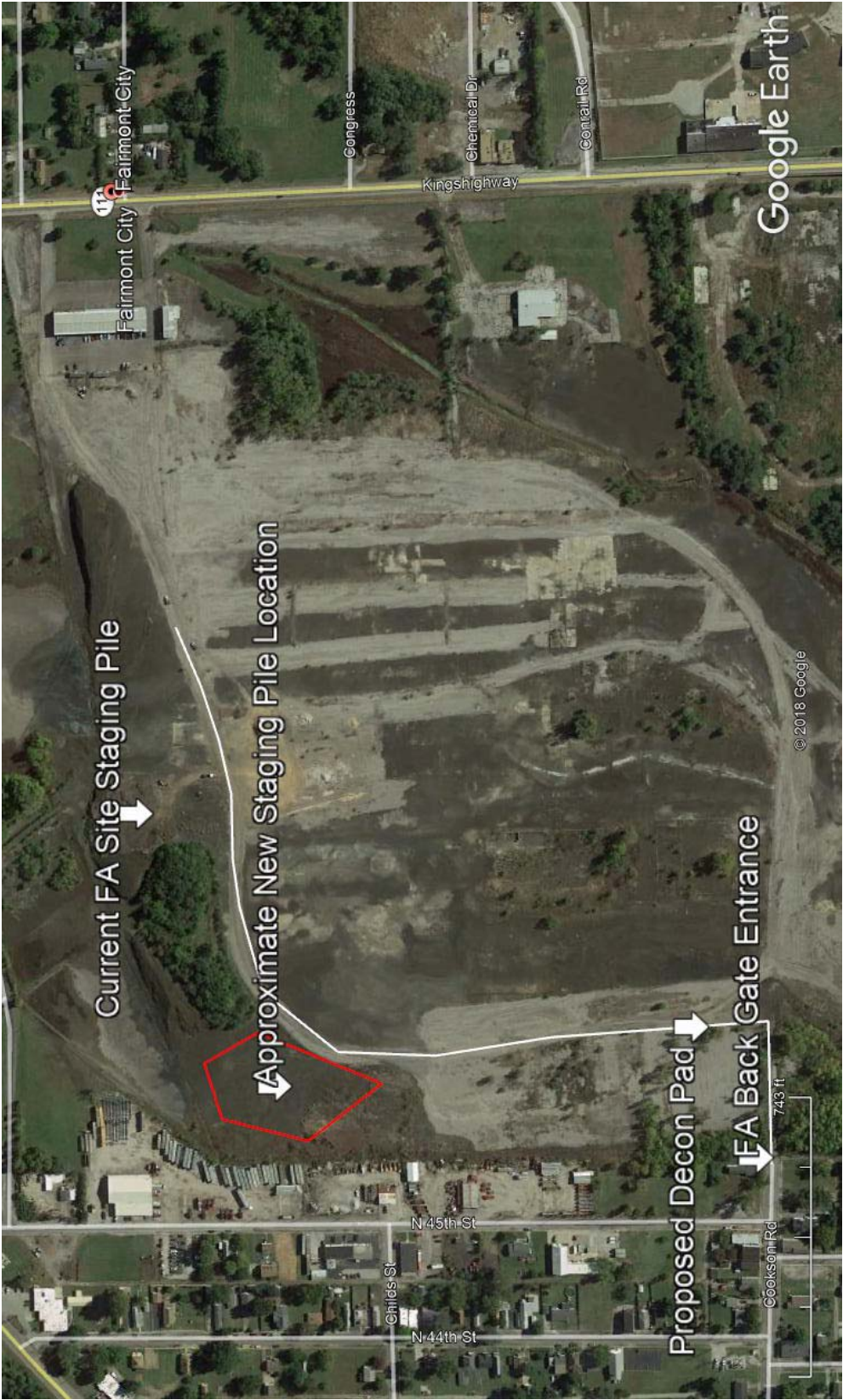
**Site Name:** OAZ **Date:** \_\_\_\_\_  
**Address:** \_\_\_\_\_

Load #	Departure Time from Stockpile	Dump Time at Address	Material		Tandem 12 cu yd	Single 6 cu yd
			Top Soil	Backfill		
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						

**DRIVER** \_\_\_\_\_  
**Truck #** \_\_\_\_\_



**Figure 5 - Location of Back Gate Entrance**



**APPENDIX A**

**TRAFFIC CONTROL PLAN**

**Traffic Control Plan**  
**for Old American Zinc Plant Superfund Site and**  
**Surrounding Properties**

**Prepared by:**



**400 Aviation Drive**  
**Mt. Vernon, IL 62864**

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## **ACRONYMS AND ABBREVIATIONS**

ANSI/SEA	American National Standard for High-Visibility Safety Apparel and Accessories
DOT	Department of Transportation
FA	Facility Area
OAZ	Old American Zinc
RP	Residential Properties



## **1.0 INTRODUCTION**

ARDL has prepared this Traffic Control Plan for the Old American Zinc Plant Superfund Site (OAZ) and Surrounding Properties in Fairmont City, St. Clair County, IL.

## **2.0 SCOPE OF WORK**

The project scope includes the excavation, transportation, and disposal of contaminated soil from residential properties (RPs) and alleyways. The excavated materials will be consolidated under a soil cover located within the Facility Area (FA) for long-term management.

The components of the OAZ project include:

- Mobilization of crews, equipment, and materials to site.
- Site set up including installation of erosion controls and set up of office trailers.
- Meeting with property owners and RP site set up.
- Excavation of RP.
- Transportation of excavated soils to the FA for placement in the stockpile staging area.
- Transportation of backfill materials from the FA to RPs.
- Restoration of RPs.
- Documentation of all activities.
- Stabilization of the excavation stockpile.
- Demobilization.

Many of these tasks will require some form of traffic control to ensure safe and productive operations.

## **3.0 SITE LOCATION**

The OAZ surrounding residential properties are in the villages of Washington Park and Fairmont City located in St. Clair and Madison counties in Illinois approximately 10 miles east of St. Louis, MO. See Figure 1.

## **4.0 TRAFFIC CONTROL**

### **4.1 FACILITY AREA**

#### **4.1.1 SITE ACCESS ENTRY POINTS**

There are two access points to the FA, one from Kingshighway/Front Gate (East Gate) and one from Cookson Road/Back Gate (West Gate). See Figure 2 for locations of entry points and the site haul roads.

##### **Kingshighway / Front Gate**

Personnel, vendor deliveries, and trash haulers will access the FA through the Kingshighway / Front Gate entrance. Parking will be located near the crew trailer. The current access roads will be utilized and improved with the addition of clean stone. This access will allow personnel to enter the FA without interacting with hauling and disposal operations.

##### **Cookson Road / Back Gate**

The Back Gate will be used primarily for incoming and outgoing waste haul trucks transporting soil for placement in the Stockpile staging area. Truck traffic will access the site on the western boundary and this road will accommodate two-way traffic. A truck turn-around area is located at the stockpile staging area. This road will also be used for equipment and borrow material delivery.

#### **4.1.2 HOURS OF OPERATION AND TRAFFIC DENSITY**

Hours of operation at the FA are from 7:00 am to 5:30 pm. During this time, deliveries, transportation of soils, water trucks, and other equipment will utilize the entrances/exits and haul roads on the FA.

Hauling and disposal operations will use the Cookson Road/Back Gate entrance during operations. The frequency of deliveries is highly variable and will be interspersed throughout the period of performance. During operations that have the potential to affect public traffic on Cookson Road/Back Gate, ARDL may deploy flaggers and signage, as necessary, to manage the interaction between heavy equipment and vehicles traveling on Cookson Road.

#### **4.1.3 ROAD MARKINGS AND TRAFFIC CONTROL DEVICES.**

Due to favorable sighting distances and low traffic density, there are no sign or signal person requirements or traffic control devices required for the off-site transportation access road. Road markings will consist of painted solid white lines on the north and south edges of the road and a double yellow line marking the center of the roadway. A stop sign will be located at the west end of the road for traffic exiting the site onto Cookson Road, and/or flaggers may be used to manage exiting traffic.

#### 4.1.4 SAFETY CONTROLS

Public interactions with project vehicles, waste haul trucks, and delivery trucks will occur at the intersection of the site entrance and Cookson Road. Safety controls may consist of warning signs posted 500 feet from the site entrance stating “trucks entering highway” any time site traffic is active. The haul roads will be routed such that interactions with other vehicles and pedestrians are minimized.

#### 4.2 **RESIDENTIAL ACCESS CONTROLS**

Initial meetings will be held with homeowners/tenants to discuss maintaining safe distances from excavation access on RPs. Two points of continuous access for property owners and tenants will be established and maintained when possible, with one point of continuous access at all times. If it is necessary to restrict access for extended periods, the work will be done at a time when the property owner/tenant will not be present. Property owner/tenant access to the property will not be restricted between the hours of 6:00 p.m. and 7:00 a.m.

Appropriate signage for “Work Zone” and protective measures will be placed where required for pedestrian traffic on sidewalks and for vehicular traffic on streets. Temporary construction (orange safety) fences will be maintained around active excavation areas to demarcate zones that should not be entered by members of the public.

#### 4.3 **LOCAL TRAFFIC CONTROLS**

RP remediations will utilize driveways when possible. Road closures are not expected to be used. If driveways are not utilized, then work will be performed using the street curb of the RP, which may necessitate closing a lane. Entrance and Exits to the RP will be controlled with access points and fencing. If excavations take place along a roadside, alleyway, or if curbside loading takes place, temporary traffic controls will be utilized to protect workers and local drivers. See Figure 3 for use of traffic controls when isolating drivers from work zones or when a temporary single lane closure is necessary. This is considered “curbside” since temporary loading or unloading of materials or vehicles is expected to necessitate the short-term closure of traffic at the street curb of the RP. All traffic control devices will be removed when not in use.

If required, flag personnel and signage will be used for public safety. Trucks will be coordinated and routed in a manner that minimizes the interference of surrounding activities and traffic patterns. Signage giving notice of construction activity (such as “Construction Ahead”) will be used when required.

Transportation routes for trucks transporting excavated and backfill materials will be on arterial streets approved for light truck traffic to minimize any potential impact on the local neighborhood. ARDL will instruct all drivers of the specific haul routes and

alternate routes prior to commencing transport activities for the project. Transport from the RPs to the FA and back is expected to be a short route, consisting of a few blocks up to a ½ mile each way. Once the trucks are loaded, covered, documented, and decontaminated, they will leave the residential areas in route to the FA vegetative or soil staging piles.

The RP remediations will not affect any Traffic Signal Operations. Fairmont City street traffic is confined to posted speed limits in the residential area.

#### 4.3.1 STREET PARKING

Curbside loading will utilize controlled access at the excavation locations. Temporary “NO PARKING” signs will be posted 24 hours prior to commencing work. These will be used to allow for curb loading and offloading of materials, as well as safe entry and exit of the construction vehicles at the RP.

#### 4.3.2 TRAFFIC CONTROL HOURS

Work hours shall be restricted to the period between 7:00am and 5:30pm for both excavations and traffic controls in the residential area of Phase 1. Night work is not applicable.

#### 4.3.3 FLAGGER’S GUIDELINE

When necessary, a flagger will be utilized to control traffic in and out of the remediation site for both contractors and motorists. Flaggers have direct responsibility for the safe passage of traffic in a work area. The lives of workers and the traveling public depend upon the flagger’s alertness and ability to control traffic.

If one lane of a two-lane roadway needs to be closed, at least two (2) flaggers will be utilized to direct traffic. Additional flaggers will be considered if intersections or other multi-road issues may affect motorists.

Flaggers shall use Stop/Slow paddle signs to control road users approaching a temporary traffic control zone.

#### 4.3.4 WORKER VISIBILITY

ARDL and/or its subcontractors will protect the public from RP excavations with visible barriers such as cones, fencing, etc. Flaggers will utilize high-visibility clothing meeting ANSI/SEA standards for color and reflective striping.

## **5.0    REFERENCES**

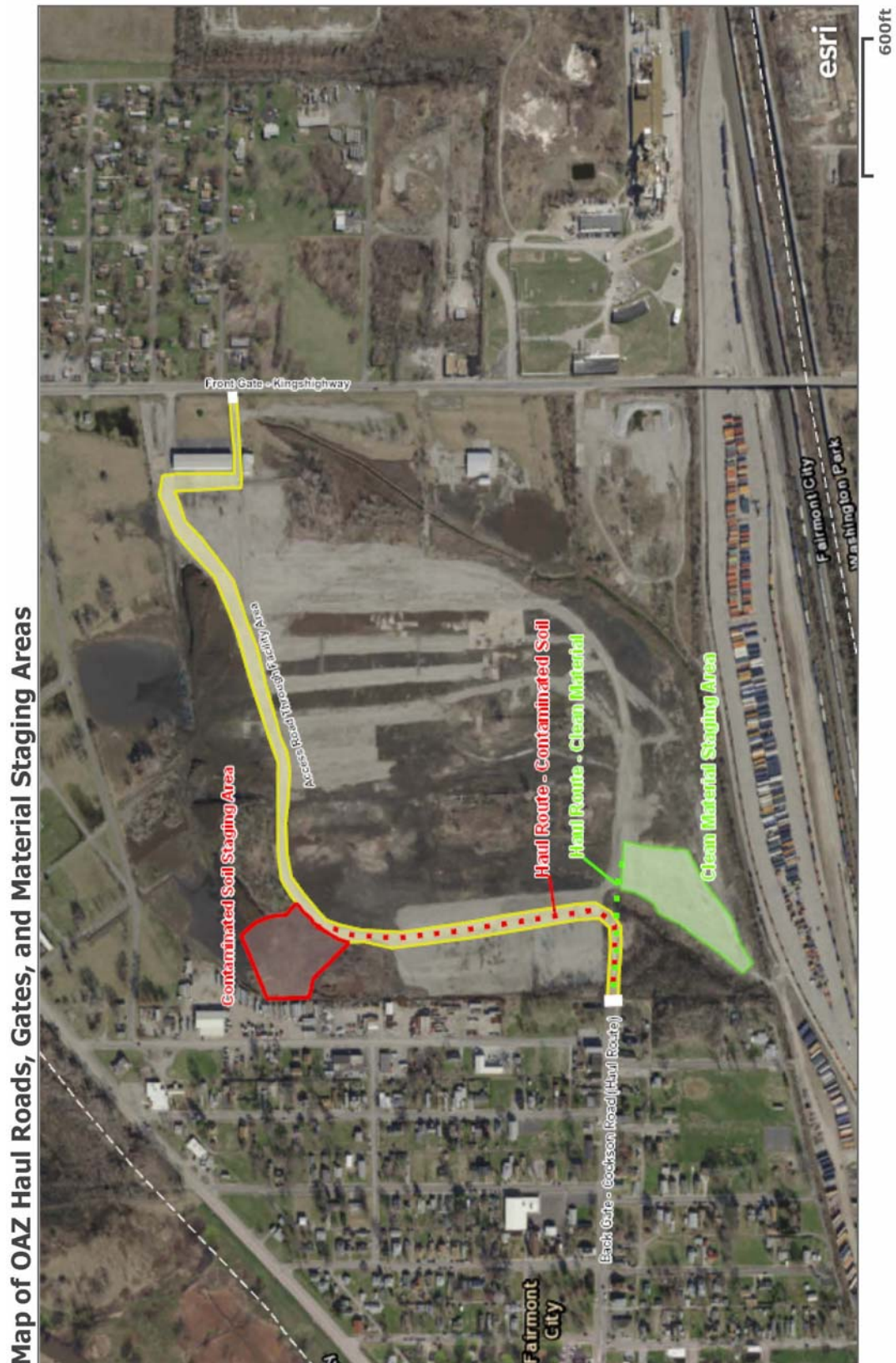
1. Final Basis of Design Report, OAZ Plant Superfund Site, Fairmont City, St. Clair County, IL, Surrounding Properties Remedial Design, December 2018.
2. OAZ Plant Superfund Site, Fairmont City, St. Clair County, Illinois Record of Decision, September 2012.
3. 29 CFR, Part 1910, Occupational Safety and Health Standards.
4. EM 385-1-1: Safety and Health Requirements, Rev 30, November 2014.
5. Traffic Control Field Manual for IDOT Employees; April 2016, Issue #1

### **Figure 1 - Site Location Map**





**Figure 2 - Location of OAZ Facility Area Haul Roads And Gates**



**Figure 3 - Street Lane Closure - Curbside Work Zone Temporary Traffic Control**

## Work Zone Temporary Traffic Control

